What is claimed is:

1. A system, comprising:

means for sampling a normal sinus rhythm (NSR) QRS-complex from a NSR cardiac cycle;

means for locating a plurality of feature points on the NSR QRS-complex based on morphological features of the NSR QRS-complex;

means for determining a NSR template for a plurality of the NSR cardiac cycles, wherein the NSR template includes a median value for each of the plurality of feature points;

means for producing a NSR filter output from a numerical convolution of the NSR template and the plurality of feature points for each of the plurality of the NSR cardiac cycles;

means for determining a median NSR filter output template for the plurality of the NSR cardiac cycles, wherein the median NSR filter output template has a median value for each value in the NSR filter output;

means for detecting a tachycardia event;

means for sampling a QRS-complex from a tachycardia complex during the tachycardia event;

means for locating the plurality of feature points on the QRS-complex from the tachycardia complex based on morphological features of the QRS-complex;

means for producing a tachycardia complex output from a numerical convolution of the NSR template with the plurality of feature points on the QRS-complex from the tachycardia complex;

means for summing a numerical difference between the values of the tachycardia complex output and the median NSR filter output template; and

means for classifying the tachycardia complex as a ventricular tachycardia complex when the sum of the difference between the values of the tachycardia complex output and the median NSR filter output template is greater than or equal to a predetermined sum of residual threshold value.

2. The system of claim 1, wherein the means for classifying the tachycardia complex comprises:

means for determining an absolute value of the difference between the values of the tachycardia complex output and the median NSR filter output template; and

means for classifying the cardiac complex as a supraventricular tachycardia complex when the absolute value of the difference between the values of the tachycardia complex output and the median NSR filter output template is less than the predetermined sum of residual threshold value.

3. The system of claim 2, further comprising:

means for sampling a plurality of tachycardia complexes and classifying each of the plurality of tachycardia complexes as either a ventricular tachycardia complex or a supraventricular tachycardia complex; and

means for determining whether a number of classified ventricular tachycardia complexes exceeds a predetermined threshold value.

4. The system of claim 3, further comprising means for declaring a ventricular tachycardia event when the number of ventricular tachycardia complexes exceeded the predetermined threshold value.

5. The system of claim 4, further comprising means for delivering a ventricular tachycardia therapy to a heart when the ventricular tachycardia event is declared.

6. The system of claim 3, further comprising means for declaring a supraventricular tachycardia event when the number of supraventricular tachycardia complexes exceeded the predetermined threshold value.

7. The system of claim 6, further comprising means for delivering a supraventricular tachycardia therapy to a heart when the supraventricular tachycardia event is declared.

8. A system, comprising:

means for sensing cardiac signals, including tachycardia complexes;

means for generating a tachycardia complex output representative of the tachycardia complexes;

means for comparing the tachycardia complex output to a normal sinus rhythm (NSR) output template;

means for classifying the sensed tachycardia complexes as either ventricular tachycardia (VT) complexes or supraventricular tachycardia (SVT) complexes based on a comparison of the tachycardia complex output to the NSR output template;

means for determining whether a number of VT complexes exceeds a predetermined threshold; and

means for declaring a VT event when the number of VT complexes exceeds the predetermined threshold.

9. The system of claim 8, further comprising means for determining the NSR output template.

10. The system of claim 9, wherein:

the means for sensing cardiac signals includes means for sensing NSR complexes.

the means for determining the NSR output template includes:

means for sampling the NSR complexes;

means for locating feature points on sampled NSR complexes and forming NSR complex vectors;

means for determining a NSR template based on the NSR complex vectors;

means for creating a filter impulse response (h(t)) using the NSR template;

means for performing a numerical convolution of the NSR template and the NSR complex vectors to create a NSR filter output; and

means for creating the NSR output template using the NSR filter output.

11. A system, comprising:

means for receiving a number of cardiac rate signals;

means for detecting a tachycardia event;

means for receiving a number of cardiac morphology signals, including a number of tachycardia complexes associated with the tachycardia event;

means for extracting tachycardia feature points from the number of tachycardia complexes;

means for generating a tachycardia complex output from a normal sinus rhythm (NSR) filter output template and the tachycardia feature points for each of the number of tachycardia complexes; and

means to classify each of the number of tachycardia complexes as a ventricular tachycardia (VT) complex or a supraventricular tachycardia (SVT) complex based on a comparison of the tachycardia complex output to the NSR filter output template.

12. The system of claim 11, further comprising means for determining the NSR filter output template.

13. The system of claim 11, wherein:

the cardiac morphology signals includes a number of NSR complexes;

the means for determining the NSR filter output template includes:

means for extracting NSR feature points from the number of NSR complexes;

means for generating a NSR template using the NSR feature points from the number of NSR complexes;

means for generating a NSR filter output using the NSR template and the NSR feature points from the number of NSR complexes; and

means for determining the NSR filter output template based on the NSR filter output.

14. The system of claim 11, wherein the means for generating a tachycardia complex output includes means for convolving the tachycardia feature points with the NSR filter output template.

15. A system, comprising:

a microprocessor;

an input circuit adapted to receive a number of rate signals and a number of morphology signals, wherein the microprocessor is coupled to the input circuit and is adapted to sense a tachycardia event, and the number of morphology signals includes a number of tachycardia complexes associated with the tachycardia event;

a morphology analyzing circuit coupled to the input circuit and adapted to extend a plurality of tachycardia feature points from each of the number of tachycardia complexes; and

a filter output response circuit adapted to receive the tachycardia feature points and to generate a tachycardia complex output using a NSR filter output template and the plurality of tachycardia feature points,

wherein the microprocessor is coupled to the filter output response circuit and is adapted to classify each of the number of tachycardia complexes as a ventricular tachycardia (VT) complex or a supraventricular tachycardia (SVT) complex based on a comparison of the tachycardia complex output to the NSR filter output template.

16. The system of claim 15, wherein the microprocessor is adapted for declaring a ventricular tachycardia event if the number of ventricular tachycardia complexes exceeds a predetermined threshold value.

17. The system of claim 15, wherein the microprocessor is adapted for declaring a supraventricular tachycardia event if the number of supraventricular tachycardia complexes exceeds a predetermined threshold value.

18. The system of claim 15, further including an output circuit coupled to the microprocessor, wherein the output circuit is adapted to deliver cardioversion and defibrillation therapy.

19. The system of claim 15, wherein:

the number of morphology signals includes a number of normal sinus rhythm (NSR) complexes;

the morphology analyzing circuit is adapted to extract a plurality of NSR feature points from each of the number of NSR complexes;

the system further comprises a template generating circuit coupled to the morphology analyzing circuit to generate a NSR template from the NSR feature points; and

the filter output response circuit is adapted generate a NSR filter output from the NSR template and the NSR feature points, and to determine the NSR filter output template using the NSR filter output.

20. The system of claim 19, wherein the filter output response circuit is adapted to convolve the NSR feature points with the NSR template to generate the NSR filter output.

21. The system of claim 20, wherein the filter output response circuit is further adapted to convolve the plurality of tachycardia feature points with the NSR filter output template to generate the tachycardia complex output.

22. The system of claim 15, wherein the filter output response circuit is adapted to convolve the plurality of tachycardia feature points with the NSR filter output template to generate the tachycardia complex output.